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Psychosemantics of Mentality: The Communicative Aspect*

In a broad sense, the objective of journalism is to support, change, or transform the subject's internal image of the world, to provide him or her with some positive information about the world or its evaluation. The "unity of reflection and relation" (Rubinstein 1997) is inherent to the text, and a certain message about the world together with the author's emotional and value position (or the position of a social institute that the author represents) is always conveyed to the reader (viewer, listener). However, the communication between the author and the recipient, although mediated by mass media, is not a transmission of information through communication channels, as in the models of Lasswel and Shannon (cf. Matveeva/Anikeeva/Mochalova 2000). It is important not only to convey information but also to consider how it will be perceived by the recipient. One may recall a Biblical parable about the seeds that fell upon different places:

Look! A sower went out to sow; and as he was sowing, some seeds fell alongside the road, and the birds came and ate them up. Others fell upon the rocky places where they did not have much soil, and at once they sprang up because of not having depth of soil. But when the sun rose they were scorched, and because of not having root they withered. Others, too, fell among the thorns, and the thorns came up and choked them. Still others fell upon the fine soil and they began to yield fruit, this one a hundredfold, that one sixty, the other thirty.

In his semantic theory of information, Shreider (1968) makes an attempt to assess the value of the information for the respondent himself. In his theory, the communication of two people is considered as the interaction of two individual thesauri (i.e., simultaneous structures that fix the set of meanings of each subject together with the systems of relations between these meanings). A graphically represented thesaurus is a connected graph where nodes contain some basic concepts, and edges are marked by the type of relation between these concepts (Apresyan 1995, p. 6). Shreider believes that we can express all subjects' present knowledge about the world by an individual

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thesaurus and evaluate the informational power of a newly received text through the degree of transformation of this initial thesaurus.

He suggests that the same text, for example, a primer on calculus, will have zero value for a junior schoolboy due to his lack of knowledge of basic mathematical concepts necessary for the understanding of this text, maximum value for a student, and, again, nil value for a Ph.D. in this field due to the banality of the text for the latter.

A text exists as a "text in a text", in a dialogue with other texts, even if the latter are not cited explicitly. In our consciousness, texts rather exist as hypertexts that include thousands of associative links, a network of cross-references, "sensory fabric of consciousness" woven by the multiplicity of images and scent of transitory dispositions.

Understanding implies a certain coincidence of semantic settings and cultural code, that is, basic knowledge about the world of communicator and recipient ("they read the same books in childhood"). The former assistant of the first President of the USSR, well-known political scientist Shakhnazarov, gives a curious instance of a collation of basic cultural grounds necessary for understanding (2001, p.13):

One evening we went to a restaurant to celebrate the closure of the international conference. Everybody got a bit drunk, and one of the Russians who didn't know any foreign languages started a lively conversation with a colleague from Italy. I became interested and listened. They tapped each other on the shoulder, rolled up their eyes, raised thumbs, and exclaimed: "Michelangelo – Oh! Pushkin – Oh! Traviata – Oh! Boris Godunov – Oh!"

In case cultural thesauri do not coincide, there emerge semantic lacunas where understanding is incomplete and even cognitive dissonance may occur (Festinger 2000).

Moreover, the recipient's image of the world may not transform entirely in the direction desired by the author of the message, and the content of the text that sharply contrasts with the value system of the recipient may not cause the assimilative attitude to accept this information but instead a contrastive attitude to it. The contrastive attitude implies the subject's strengthening aversion towards the obtrusion of life position, model of the world, or value

guidelines. From my childhood, I remember a Chinese movie about the creation of communes in villages, where peasants, furious with avenger, cudgelled the landlord to death. Most likely, the script writer and producer intended the film to be a victorious ode of the revolution. A present-day viewer, who has different political attitudes, perceives it as an orgy of medieval intolerance and violence.

In his lectures, Nazaretyan (2001) gives a similar example of the divergence between the intentions of the communicator and the understanding of the recipient. In the 1960s, local propagandists in India issued a number of posters within the framework of the programme for decreasing fertility that depicted ragged parents with many smudgy and untidy children and a rich prosperous couple with a single child. People stopped before the poster and sympathised with the families that "had everything, but God didn't give them children".

Thus the efficiency of communicative influence implies at least the transformation of the vector of the recipient's attitudes in the desired direction, which means the necessity of the reconstruction of the viewer's (reader's, listener's) initial notions and social representations (the term of Moskovici 1998) **before** – and **after** – the act of communication. However, the representations themselves, even if their bearer is wholly ready for constructive cooperation with the researcher, are very difficult to explicate. The point is that, as Vygotsky (1934) noted, although the notions (at least everyday notions) are the means of understanding their bearer himself may be not aware of them. A simple survey (the base of sociological methods) turns out to be rather ineffective. This assertion is especially true for such subconscious layers of the subject's image of the world as setting or categorical framework of world perception, based upon implicit, hardly reflected knowledge about the world (things that are accepted for granted and, therefore, hardly realised). The private and social life of an individual produces many examples of the use of nearly unreflected knowledge. Every person builds up relations with other people as a "commonsense psychologist"; planning his budget he becomes a "commonsense economist"; having political preferences, electing his representations of authorities, government, and parties he acts as a "commonsense political scientist". Ethical values, notions of "good" and "evil", "honour" and "duty" also have cognitive representations. To designate this

pre-scientific knowledge common to everyone, Bruner and Tagiuri (1954) introduced a concept of "implicit" theory (model) of the subject in relation to certain fields of knowledge.

Experimental psychosemantics provide a methodology and form of representation of these notions (or fragments of the subject's image of the world – which is synonymous to us) (Petrenko 1983, p. 10-12). Because of the impossibility of direct access to this knowledge, the limitations of introspection dictate the necessity of indirect methods for the analysis of their manifestation, the methods of "activity mediation". The specificity of psychosemantic approach lies in the fact that the analysis of the categorical structures of consciousness, the reconstruction of the system of meanings mediating the subjective understanding of the world, are studied in "usage mode", not introspectively. The subject classifies something, evaluates, scales, and makes judgments on the similarity and difference of the objects. It is possible to use psychophysical techniques (specific lie-detectors) such as "emancipation from proactive inhibition" or Luria's "semantic radical", where the generalisation of conditioned response allows the revealment of semantic relations between the analysed objects. It is heuristic to use such "exotic" means of setting semantic links as the transfer of posthypnotic instruction to semantically related objects. That is, the subject in the mode of "usage", and not introspection, produces many particular judgments or particular links (data matrix) that implicitly contain a certain internal structure reflecting the subject's implicit model of the world. We may give an analogy from linguistics where specialists distinguish between "language competence" and "language performance". For example, a young Englishman perfectly speaks his native language (language performance), but he is hardly aware of its grammar and syntax. When we start learning English, we begin with grammar rules (language competence), and, even if we make good progress at it, we hardly achieve the level of the English child's performance. Similarly, the respondent may easily generate many particular judgments within the limitations of a given instruction (for instance, Olya looks more like Masha than Tanya, and Tanya looks more like Sveta than Katya) and be totally unaware of the implicit personality model on the basis of which he makes these judgments.

Further application of multivariate statistics (factor, cluster analysis, multi-dimensional scaling, and latent and determinational analysis) allows us to

reveal the structures that lie in the base of the obtained data matrix. The interpretation of the revealed structures is performed through the search of the semantic invariants of the items included in a factor or cluster and also through the analysis of the content of objects that are most contrastive on the revealed factors. Competent experts are invited to formulate the hypothesis about the content of factors (the method of independent judges); reference objects are included in the initial set to simplify the interpretation, etc.

In a graphical representation of the semantic space, categories/factors represent the axes of such an n -dimensional space, where the dimension is determined by the number of independent, non-correlating factors, and the values of the analysed subject field are represented by coordinate points (or vectors) in this space.

From a mathematical standpoint, the construction of a semantic space is a move from the basis of greater dimension (items indicated by scales, descriptors) to the basis of lesser dimension (categories/factors). Semantically, categories/factors are a certain meta-language for the description of meanings; this is why semantic spaces allow the decomposition of meanings into the fixed alphabet of categories/factors, that is, to perform a semantic analysis of these meanings, to make judgments about their similarity and difference, and to determine semantic distances between meanings by calculating distances between corresponding coordinate points inside an n -dimensional space.

Psychosemantics implement the principle of operational analogy between the parameters of semantic space and categorical structure of consciousness.

Thus, the dimension of space (the number of independent categories/factors) corresponds to the cognitive complexity of the subject's consciousness in a certain field of knowledge. The training and development of personality lead to the growth of the dimension of consciousness and the appearance of new meaningful factors (Petrenko 1997). In particular, the effect of communicative influence, together with the transformation of a subject's personal sense about objects (and respectively, their coordinates in semantic space), may, in its "strong expression", lead to the appearance of new dimensions in a subject's awareness of the world and of himself.

Cognitive complexity reflects differentiation and maturity of consciousness. Nevertheless, the consciousness is heterogeneous, and the individual may yield a high cognitive complexity in one subject field and a low one in another. For example, a subject or a group of subjects may yield a high cognitive complexity when rating football teams – and a low one when differentiating political parties, and a high complexity of consciousness in the sphere of interpersonal relations – and a low one when determining the styles of painting.

An important qualitative indicator of the organisation of semantic space is the content of the revealed factors itself, which may be different for different respondents within the same subject field. The semantic space, constructed on the basis of the ratings of objects in the concrete subject field, turns out to be a derivative from the subject's knowledge of this field, his "implicit theory" of this area of knowledge. Meanings, at the same time, are operators of classification. Only those grounds of classification that are inherent to the subject itself may be revealed in the psychosemantic experiment and be reflected as factors – coordinate axes of the semantic space. For instance, in the semantic space of differentiation of animals, we can hardly expect a factor of "edibility – inedibility" for a vegetarian or a factor "political convictions" for the differentiation of people by a child.

Another indicator for the cognitive organisation of individual consciousness is the so-called "perceptive (differential) power of a feature". Subjectively more significant grounds of categorisation make greater impact on the total variability of the objects' ratings (share of total variance) and the corresponding factor-coordinate axes of the semantic space polarise the analysed objects more strongly. The space stretches "like rubber" along the axis of subjectively significant factors.

Finally, the disposition of analysed characters, events, or other objects in the semantic space (coordinates of these objects in the new system of categories/factors are calculated by multiplication of the initial matrix of objects' ratings by the transposed matrix of factor loadings of the initial scales-descriptors) allows the representation of the attitude of respondents (their personal senses or connotative meanings) to the objects of analysis. The set of these connotative meanings (peculiar "clouds" of meanings) provides the "ground for ori-

entation" (the term of Galperin 2002) in the processes of empathy, penetration into the consciousness of respondents: It allows for the observation of events or characters with the "eyes" of respondents.

The constructed semantic space implements two objectives: The coordinate axes that form the "skeleton" of the semantic space are operational in analogy with the categorical structure of individual consciousness within the framework of a certain subject field; the disposition of analysed meanings in the semantic space allows us to reconstruct the respondents' attitudes towards analysed events or characters.

As an illustration of the disposition of objects in the semantic space, let us consider our former study of viewers' attitudes towards TV hosts.

In semantic spaces of lower dimensions, when descriptors are united in factors on connotative, not denotative, grounds, the disposition of meanings reflects their connotative components where reflection and attitude are bonded, i.e. meanings whose personal sense and sensory fabric are inseparably united. Such spaces characterise the personal sense of the individual and are used for the study of social attitudes, stereotypes, etc.

The psychosemantic approach to the study of personality implements the paradigm of a "subjective" approach to the understanding of the other. A meaningful interpretation of the revealed structures (factors) necessarily requires seeing the world through the "eyes of the respondent", to reveal his ways of understanding the world. The individual system of meanings reconstructed in a subjective semantic space is a specific ground for orientation in such an empathic process and provides its semantic base. The psychosemantic approach allows us to outline new principles of personal typology, where the personality of a respondent is regarded not as a set of objective parameters in the space of diagnostic indicators but as a bearer of a certain image of the world, as a macrocosm of individual meanings and sense.

In our studies of personality within the framework of a psychosemantic approach, we widely use the description of an individual through the evaluation of his behaviour in the suggested circumstances and the construction of semantic spaces of human acts (Petrenko 1997). The disposition of acts,

images of significant others, the respondent himself, his alter-ego, images of his contemporaries, and historical or literary characters in a semantic space allow us to reconstruct the respondent's perception of the world and to understand the system of his values, attitudes, and personal sense. The attribution technique suggested by us (ascribing motives of acts from the standpoint of a certain character) also proved to be promising in the field of the psychology of art perception. The specificity of the psychosemantic approach in this field lies in the fact that the researcher addresses the work of art through a mediator-recipient and sets an objective to see, listen, understand, and feel the work of art from the standpoint of a viewer, reader, or listener to describe the piece of art in its modified form – the form of event and experience of the spiritual life of another person. The reconstruction of a subjective existence of the piece of art is carried out through the accumulation of subjective semantic spaces, where fragments of behaviour, acts of characters taken immediately from the plot, are descriptors, and respondents evaluate, for example, the extent to which certain acts are characteristic of this or another personage or the probability of some motive to be the reason for the act of a personage. The studies show that the higher the acceptance or identification with the personage on the part of a viewer the more complex and diverse is the motivational range of behaviour ascribed to the character and the more subjective, not objective, the viewer's perception of the personage becomes.

The assessment of the effectiveness of communicative influence (reading of a book or watching a film) upon the respondent within the framework of psychosemantic approach is carried out through the evaluation of the transformation of the image of the world (more precisely, its specific locus) expressed by semantic space, that is, through collation of the semantic space of some subject field before and after the communicative impact on the recipient. As an illustration of such change, we would provide the picture of transformation of the semantic space of the images of self and others in the course of a hypnotherapy session with chronic alcoholics.

In general, a number of transformations of semantic space depending on the intensity of communicative influence (given in the order of increasing intensity) is possible:

- 1) the change of coordinates of the analysed objects (their connotative meaning or personal sense), while coordinate axes (categories of consciousness) of semantic space remain intact;
- 2) the change of perceptual power (the contribution of a factor to total variance) of the coordinate axes themselves, which implies the alteration of the subjective significance of categorisation grounds;
- 3) the change of content of the coordinate axes themselves that reflects the transformation of the system of constructs through which the subject understands certain fields of knowledge;
- 4) the change of the dimension of semantic space (the increase in the number of factor-categories of consciousness), the change in cognitive complexity of consciousness.

All of these parameters taken separately or in combination are operational criteria of the effectiveness of communicative impact and allow us to describe quantitatively and qualitatively the transformation of the subject's image of the world under the influence of a printed word, video fragment, or melody or their syncretic unity in the work of art.

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